

The areola has a stout, flat, smooth bordering keel all round, the posterior part wider than the rest; it is roundly narrowed behind, being there only one half the width of the base, and is transverse; it is distinctly longer than wide, inside it is coarsely irregularly aciculated; the posterior median area is coarsely transversely rugose; the lateral basal area are coarsely punctured, the others coarsely rugose. Pleuræ punctured, the mesopleuræ more strongly than the rest and the meta- more strongly than the propleuræ.

May be known from *H. annulitarsis* by the first abdominal segment only being marked with yellow, by the stronger more robust antennæ, by the larger areola (which is not marked with yellow), by the yellow marks on the metanotum being smaller and by those on the metapleuræ larger.

[To be continued.]

XXIV.—*Notes on Blattidæ &c., with Descriptions of new Genera and Species in the Collection of the British Museum, South Kensington.*—No. II. By W. F. KIRBY, F.L.S., F.E.S.

Two large genera of Blattidæ are greatly in need of subdivision—*Phyllodromia* and *Epilampra*. I have not touched the former, but have detached several sections from the latter which appear to be sufficiently distinct to rank as genera, and some of these will perhaps admit of further subdivision when we have more species to classify.

## BLATTIDÆ.

### PHYLLODROMINÆ.

Genus PSEUDOMOPS, Gerv.

*Pseudomops Walkeri*, n. n.

*Pseudomops flavipes*, Walk. Cat. Blatt. B. M. p. 79. n. 10 (1868).

Differs from *P. flavipes*, Burm., in the presence of two broad parallel black stripes occupying most of the reddish part of the front of the pronotum, and connected behind by a broad blackish crescent, separated from the border of the pronotum by a narrow space. Also allied to *P. inclusa*, Walk., but the pronotum of the latter has two slender parallel blackish

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stripes, connected below into a **U** shape, and throwing out a short branch on each side at the lower extremity.

*Hab.* Tejuca, Brazil (*Rev. H. Clark*).

### Genus DURYODANA, nov.

Allied to *Allacta*, Sauss. & Zehntner, but easily distinguished by the very large palpi, with the second and third joints greatly dilated.

Type *Blatta palpalis*, Walk. (*Phyllodromia palpata*, Brunn.), from Borneo.

### *EPILAMPRINÆ.*

### Genus MOLYTRIA, Stål.

#### *Molytria imperatrix*, sp. n.

Long. corp. 55 millim.; exp. tegm. 118 millim.; lat. 19 millim.

*Female*.—Head yellowish grey, vertex with three parallel light brown lines; labrum with a brown band at base, followed by two brown dots; pronotum much broader than long, the lateral extremities obtusely rounded, and the hinder extremity with a slight obtusely rounded projection in the middle; pronotum and tegmina shining yellowish grey, the pronotum rather darker and edged by a paler yellow line; in the middle is a large irregularly subquadrate scutcheon, broadest and subangulated in front, and throwing out a broad obtusely rounded projection in front; the sides slope to the hinder extremity, the angles of which are rounded off; the colour is black, obsoletely and narrowly edged outside with reddish yellow; in the middle is a dull red line, and the centre on each side of this is varied with dull red and with black markings. Tegmina obsoletely shaded with brownish, and with broad yellow nervures, bordered with slender blackish lines formed of continuous dots, and with some larger blackish or pale brown spots; anal area of the left tegmen thickly punctured in rows between the numerous parallel nervures; right tegmen with the covered part brown, varied with irregular pale markings, and shading outwards into the pale ground-colour of the tegmen. Wings smoky subhyaline, darkest at the base and along the costa to the apex. Abdomen brown, darkest towards the extremity, and with a few short longitudinal carinæ, the base paler, especially at the

incisions; terminal laminæ and lateral angles of the segments conspicuously pale. Antennæ, legs above, and spines reddish brown; under surface of body and legs (except spines) pale yellowish.

*Hab.* Tonkin (*Fruhstorfer*).

Allied to *M. amplipennis*, Walk., from Silhet, but much larger, and easily distinguished by the markings of the pronotum. A difficult insect to describe.

*Molytria Shelfordi*, n. n.

|| *Epilampra polyspila*, Walk. Cat. Blatt. B. M., Suppl. p. 133 (1869), nec Cat. Blatt. p. 197 (1868), which is synonymous with *M. maculata*, Brunn.

In the Oxford Museum from Sarawak, from the Saunders collection (type of *polyspila*, Walk., 1869), and in the British Museum from the same locality (*Shelford*).

Genus HOMALOPTERYX, Brunn.

*Homalopteryx Templetonii*, n. n.

|| *Epilampra cribricollis*, var. (?), Walk. Cat. Blatt. B. M. p. 195 (1868).

*Hab.* Ceylon (*Templeton*).

A very distinct species from *Epilampra lucida*, Burm. (*cribricollis*, Serv.), from Java, Borneo, &c., and without the large and conspicuous punctures on the pronotum which gave rise to Serville's name.

Genus CALOLAMPRA, Sauss.

*Calolampra Tepperi*, n. n.

|| *Epilampra propria*, Tepp. Trans. Roy. Soc. S. Australia, xvii. p. 64 (1893).

*Hab.* Kangaroo Island, South Australia.

The types of Walker's *Polyzosteria propria* are ordinary females of *Calolampra irrorata*, Fabr. (= *gracilis*, Brunn., = *atomifera*, Walk., and probably also = *fornicata*, Sauss.), and therefore the species described by Teppel requires another name. *Epilampra*, as characterized and understood by Teppel, = *Calolampra*.

Genus PSEUDOPHORASPIS, nov.

Pronotum rhomboidal, arched, covering the vertex. Tegmina about twice as long as broad, smooth and shining as if

polished, broadly and obtusely rounded at the extremity; nervures of the tegmina well marked, especially in the costal cell; anal area reticulated.

Will include *Epilampra nebulosa*, Burm., type (= *jaspidea*, Brunn.), *scita*, *congrua*, and *deplanata*, Walk., and perhaps also *conformis*, Walk., the type of which is missing.

#### Genus RHABDOBLATTA, nov.

Pronotum elliptical, broader than long, nearly concealing the head; tegmina densely reticulated, the costal area with numerous slightly oblique transverse nervures, the outer ones bifurcated; costa strongly arched, apex produced into a strong but short projecting angle, below which the hind margin forms first a shallow concavity, and then a long narrow convexity, which passes gradually into the inner margin.

Type *Epilampra præcipua*, Walk., from Ceylon.

#### Genus HETEROLAMPRA, nov.

Pronotum rhomboidal or elliptical, leaving the head more or less uncovered and often entirely free; tegmina twice or thrice as long as broad, and often more, the costal cell always with more or less distinct transverse nervures, at least towards the extremity.

*Epilampra dilatata*, Brunn. (= *laticollis*, Walk.), from Australia, being an easily recognizable species, may be indicated as the type.

This genus will require further subdivision, and has therefore been provisionally characterized in a somewhat elastic manner. For the present it is proposed to include in it all the Old-World species described under *Epilampra*, and not yet separated under other names.

Burmeister's name *Epilampra* may be retained for the American species, with *E. brasiliensis*, Fabr., as the type. They differ from the Old-World species in the usually rather small costal cell of the tegmina never containing transverse nervures, even towards the extremity, nor are any visible in the large species separated by Stål as *Pæciloderrhis* (type *verticalis*, Burm.).

#### *Heterolampra puncticollis*, Walk.

*Epilampra puncticollis*, Walk. Cat. Blatt. B. M. p. 74. n. 28 (1868).

*Hab.* Sarawak.

*Heterolampra Stæli*, n. n.

|| *Epilampra puncticollis*, Stål, Œfv. Vet.-Akad. Förh. xxxiv. (10) p. 34 (1877).

*Hab.* Philippines.

*Heterolampra Saussurei*, n. n.

|| *Epilampra puncticollis*, Sauss. Rev. Suisse Zool. iii. p. 359 (1895).

*Hab.* China.

*Heterolampra monticola*, sp. n.

Long. corp. 25–27 millim.; exp. al. 71 millim.

*Female*.—Head prominent, pale yellowish grey below the antennæ; above thickly punctured with black. Pronotum yellowish grey, with traces of a more yellow longitudinal line, very broad behind; lateral borders subhyaline. The whole surface crowded with small brown or black, sometimes confluent, punctures; a row of short black streaks on the hinder border, a row of small black dots near the lateral margins, and a few larger scattered ones nearer the centre. The rest of the upper surface liver-coloured, but darkening into blackish towards the extremity of the abdomen; abdomen with 4 oblong pale spots at the base of each segment, and a few small raised carinæ towards the extremity of some of the hinder ones; terminal laminæ and lateral angles of the segments pale, setæ reddish, with a black line above. Under surface pale yellowish grey, tips of spines and claws darker; a row of black dots towards the end of each segment of the abdomen. Tegmina pale yellowish grey, with a number of scattered blackish dots in the costal cell, which is small and rather indistinctly veined, and 8 or 10 brown blotches on various parts of the tegmina, the 5 or 6 largest being beyond the middle. Covered part of the right tegmen separated by a broad, whitish, oblique streak, ceasing at about two thirds of the distance to the costa. Wings subhyaline, with pale nervures, more or less yellowish, and dotted with black towards the costa.

*Hab.* Matton Mountains, Tonkin, April and May (*Fruhstorfer*).

Resembles *H. lucida*, Burm., in shape, but the pronotum is narrower and much more closely punctured. Received under the name of *parvicollis*; but *Epilampra parvicollis*, Walk., is a species of *Hedaia*.

*Heterolampra pallida*, sp. n.

Long. corp. 37 millim. ; exp. al. 77 millim.

*Female*.—Very similar to the last species, of which I thought at first it might be a variety ; but the head, pronotum, and tegmina of a much paler and more uniform grey. Head and pronotum very thickly marked with black punctures, clearly defined, though showing a tendency to run together into groups ; pronotum with a few larger black dots, chiefly towards the hinder extremity. Tegmina with the principal nervure marked with black on the basal third of the tegmen ; costal area pale, somewhat more distinctly veined than in the last species ; tegmina not otherwise spotted, but the covered part of the right tegmen brownish below the rather indistinct oblique whitish streak. Wings brownish hyaline, darkest towards the costa, with a clearer hyaline space towards the tip. Abdomen dark brown, lighter towards the base of the segments, and with numerous short, raised, blackish carinæ towards their extremity. Terminal laminæ pale. Under surface grey ; legs more yellowish ; abdomen beneath with rather indistinct black dots towards the extremity of each segment, and a row of large black spots on each side.

*Hab.* Tonkin (same remarks as last species).

*Heterolampra Ridleyi*, sp. n.

Long. corp. 47 millim. ; exp. al. 116 millim.

*Female*.—Head brownish chestnut above, passing into yellowish tawny below ; antennal pits slightly bordered with brown in front ; pronotum leaving the head only slightly free, elliptical, much broader than long, the lateral angles only slightly rounded, reddish brown, rather darker in the middle, but not towards the extremity, with numerous shallow black punctures, and a few rather larger black dots, chiefly towards the hinder extremity ; front with slight transverse ridges in the middle ; meso- and metanotum yellowish brown (perhaps discoloured) ; abdomen very broad, orange tawny, with a slight central carina, and slight raised concolorous carinæ at the extremities of the segments ; terminal laminæ very long, brown, except at the base. Tegmina light grey, with numerous pale spots and spaces, largest and most numerous towards the tips ; costa arched, covered part of right tegmen yellowish brown beyond the pale yellowish oblique line. Wings smoky brown along the costa, this colour extending towards the tip as far as the fold ; between this and the base

is a long, narrow, triangular, yellowish space; apex and the whole of the wings below the fold subhyaline. Under surface of body reddish brown, shading into black towards the extremity of the abdomen; pleura and front coxæ slightly pruinose-grey; legs blackish above, reddish brown below.

*Hab.* Singapore.

One of the largest species of the *Epilamprinæ*, and not closely allied to any other. I am glad to have the opportunity of naming this conspicuous insect after Mr. H. N. Ridley, to whom the Museum is indebted for so many valuable specimens.

Genus *HEDAIA*, Sauss.

*Hedaia abdominalis*, sp. n.

Long. corp. 15 millim.; exp. al. 65 millim.

*Female*.—Head free, liver-coloured above the antennæ, with very large pale yellow ocelliform spots; mostly pale yellow below the antennæ. Pronotum rather small, moderately produced behind; pale yellow, darker in the middle, very thickly speckled with brown, and with a few larger and more distinct black dots, especially along the front border. Abdomen yellowish tawny. Under surface with a rather broad black median stripe. Tegmina rather long and narrow, with the apex rounded off, brown, speckled with yellow, and with several larger yellow (sometimes whitish) spots. Wings brown along the costal area, brownish hyaline below.

*Hab.* Tonkin.

Allied to *H. olivacea*, Sauss., from Cochin China, but differs in the colour of the abdomen &c.

*Hedaia immaculata*, sp. n.

Long. corp. 35 millim.; exp. al. 74 millim.

*Female*.—Head free, black, ocellar spots large, pale yellow, and mouth-parts below the clypeus yellowish at the sides, darker in the middle. Pronotum black, finely transversely striated, the sides towards the borders slightly subhyaline reddish in front; two slight impressions near the middle. Tegmina rather long and narrow, brown, rather paler towards the extremities, where they are obtusely rounded off. Wings as in *H. abdominalis*. Abdomen and underside yellowish tawny; legs blackish above.

*Hab.* Tonkin, Matton Mountains, April or May (*H. Fruhstorfer*).

Allied to *H. olivacea* and *H. abdominalis*.

*Hedaia horologica*, sp. n.

Long. corp. 35 millim.; exp. al. 81 millim.

*Female*.—Head free, light reddish brown in the middle, yellowish grey behind and below the eyes, on the front of the vertex, and on the sides and lower part of the face, the dark part terminating in a short blackish transverse stripe at the base of the labrum; pronotum light tawny, the sides subhyaline grey, mottled, spotted, and punctured with black; a black hourglass-shaped spot behind the middle, the front of which is occupied by two large punctures surrounded with black about the middle of the pronotum; abdomen tawny, blackish towards the extremity of the hinder segments above, paler and granulated with black below; a row of blackish sublateral spots both above and below. Tegmina yellowish grey, mottled with light ferruginous brown; covered part of the right tegmen broadly ferruginous. Wings brownish subhyaline, with whitish cross-nervures; costal area purplish brown.

*Hab.* Khasia Hills.

Allied to *H. procera*, Brunn. (*Borrei*, Sauss.), but has more superficial resemblance to *Molytria maculata* and *Shelfordi*, from which its free head, narrow wings, &c. amply distinguish it.

[To be continued.]

XXV.—*Notes on the Natural History of East Finmark.* By Canon A. M. NORMAN, M.A., D.C.L., LL.D., F.R.S., F.L.S.

[Continued from p. 128.]

## ANNELIDA POLYCHÆTA.

PROFESSOR M'INTOSH kindly determined for me many of the Polychæta which I collected; these included several species not previously recorded from this district. The list of Polychæta has been made as far as possible complete by adding the Annelida collected by M. Sars, Esmark, Danielssen, and others in this district. I have gone through a large number of papers with care. All that was known of Norwegian Polychæta up to 1894 as regards species, though not fully with respect to habitats, will be found in Olaf Bidentkap's